

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P308598

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP250-W2A-U-5700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P308598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-RDP-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2577.0 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

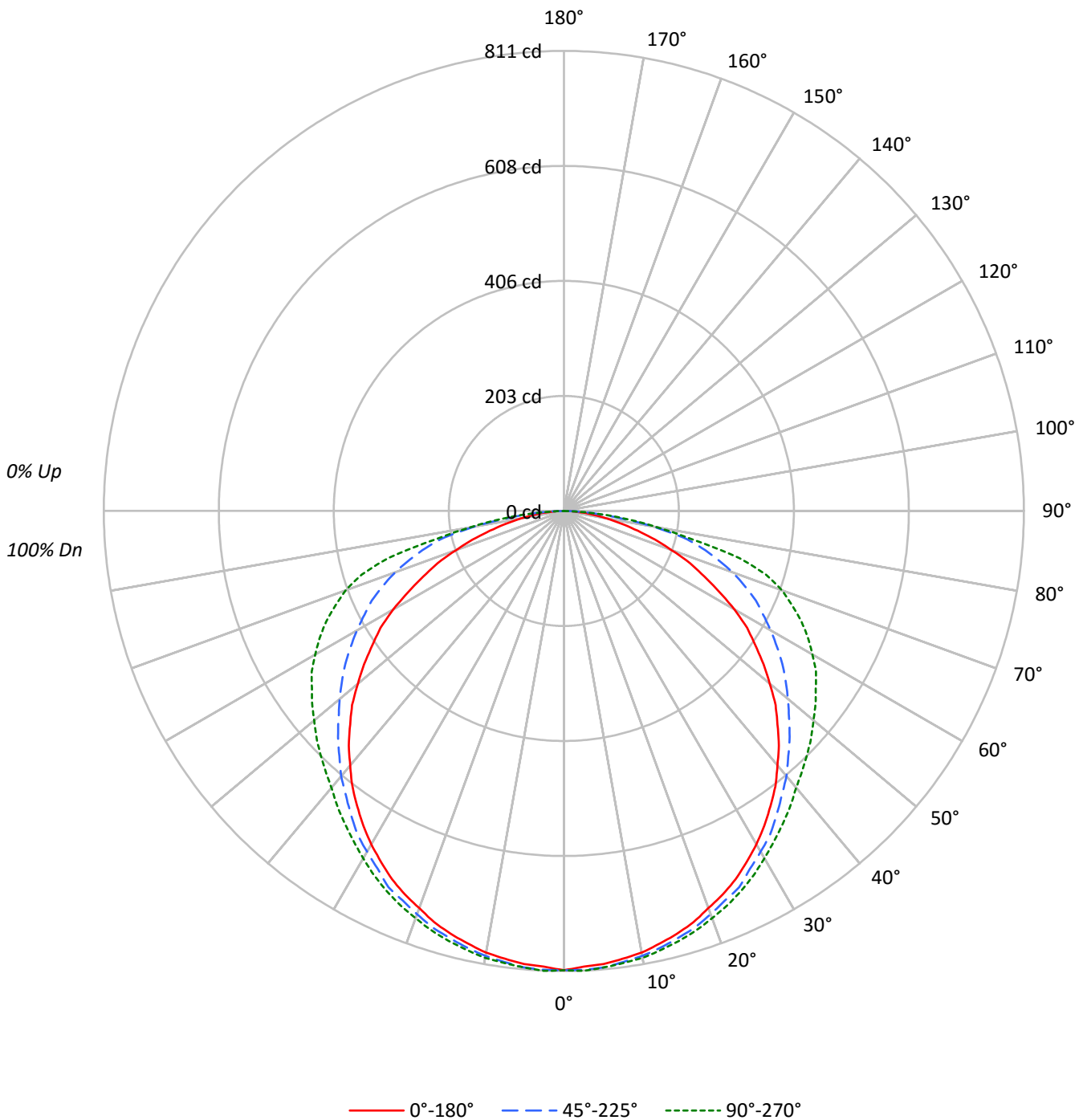
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2178	2178	2178
5°	2166	2182	2182
10°	2160	2176	2186
15°	2150	2170	2186
20°	2133	2166	2188
25°	2128	2173	2195
30°	2109	2156	2197
35°	2086	2148	2211
40°	2058	2144	2238
45°	2027	2143	2308
50°	1984	2159	2405
55°	1930	2206	2544
60°	1867	2265	2724
65°	1738	2378	2946
70°	1596	2491	3222
75°	1399	2621	3331
80°	1204	2497	2614
85°	1053	1815	1991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	3.0
10°-20°	219.9	8.5
20°-30°	335.4	13.0
30°-40°	409.6	15.9
40°-50°	437.9	17.0
50°-60°	422.7	16.4
60°-70°	363.9	14.1
70°-80°	246.2	9.6
80°-90°	65.0	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	631.8	24.5
0°-40°	1041.4	40.4
0°-60°	1902.0	73.8
0°-90°	2577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	802	804	808	808	808	76
15°	772	774	779	783	785	218
25°	717	720	732	736	739	330
35°	635	641	654	667	673	397
45°	533	542	563	592	607	411
55°	411	425	470	518	542	369
65°	273	300	374	432	463	271
75°	135	178	252	303	320	144
85°	34	47	59	61	64	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	809.5	809.5	809.5	809.5	809.5
2.5°	803.8	805.7	809.5	809.5	811.4
5°	801.9	803.8	807.6	807.6	807.6
7.5°	796.2	798.1	801.9	803.8	803.8
10°	790.5	792.4	796.2	798.1	800.0
12.5°	781.0	782.9	788.6	792.4	792.4
15°	771.6	773.5	779.1	782.9	784.8
17.5°	760.2	764.0	769.7	773.5	775.4
20°	745.0	748.8	756.4	762.1	764.0
22.5°	731.8	735.5	743.1	748.8	752.6
25°	716.6	720.4	731.8	735.5	739.3
27.5°	697.6	701.4	710.9	718.5	724.2
30°	678.7	682.5	693.8	703.3	707.1
32.5°	657.8	663.5	676.8	684.4	690.0
35°	635.1	640.8	654.0	667.3	673.0
37.5°	612.3	618.0	631.3	648.3	655.9
40°	585.8	593.4	610.4	633.2	637.0
42.5°	561.1	570.6	585.8	612.3	621.8
45°	532.7	542.2	563.0	591.5	606.6
47.5°	506.2	515.6	538.4	572.5	591.5
50°	473.9	487.2	515.6	555.5	574.4
52.5°	443.6	455.0	492.9	536.5	559.2
55°	411.4	424.6	470.1	517.5	542.2
57.5°	382.9	394.3	445.5	498.6	527.0
60°	346.9	362.1	420.9	477.7	506.2
62.5°	309.0	331.8	396.2	455.0	485.3
65°	273.0	299.5	373.5	432.2	462.6
67.5°	240.8	269.2	345.0	407.6	436.0
70°	202.8	238.9	316.6	377.3	409.5
72.5°	168.7	208.5	284.4	345.0	373.5
75°	134.6	178.2	252.1	303.3	320.4
77.5°	104.3	146.0	216.1	231.3	233.2
80°	77.7	115.6	161.1	163.0	168.7
82.5°	53.1	81.5	104.3	113.7	115.6
85°	34.1	47.4	58.8	60.7	64.5
87.5°	15.2	17.1	20.9	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)